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TWO EXOTIC COMPOSITAE IN NORTH AMERICA

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I. *Senecio canabinaefolius* Hook. & Arn. in Florida

Early in the nineties Professor Charles Mohr collected a plant on ballast at Hunter's Wharf, presumably at Pensacola, Florida, which he referred to *Senecio* without specific determination. The specimen, now in the United States National Herbarium, is a rather imperfect one, although it shows a complete inflorescence, the upper portion of the stem, and a few fragmentary leaves. On the label is written "a fine plant four to five feet high, June, 1893-1894." Another specimen, also in the National Herbarium and evidently conspecific with the above, was collected by Professor Mohr and definitely labeled "ballast ground, Pensacola, May 15th," but unfortunately the portion of the label indicating the year has been cut off. However, the second specimen shows in addition to the entire inflorescence well-preserved upper stem-leaves; thus the two together possess all the essential characters for satisfactory specific identification. A careful study of these specimens has been made, and they agree in every detail with the original description of *Senecio canabinaefolius* Hook. & Arn., a South American species from the marshes of La Plata, near Buenos Aires, which may be briefly redescribed as follows:

***Senecio canabinaefolius* Hook. & Arn.** in Hooker's Jour. Bot. 3: 341. 1841.

A stout herb, glabrous throughout or slightly white-tomentulose on the under leaf-surface; stem erect, 1 to 1.5 m. high, branched, striate; leaves 3 to 10 cm. long, mostly deeply bi-tri-pinnatifid with few linear to linear-lanceolate divergent sharply dentate lateral divisions; inflorescence a terminal compound corymbose many-headed cyme; heads about 1 cm. high, radiate; involucre campanulate, calyculate; bracts of the involucre linear-attenuate, 5 to 6 mm. long; ray-flowers 9 to 13, rays yellow; disk-flowers numerous, about 50; achenes hispidulous.—Florida: on ballast ground, Hunter's Wharf, Pensacola, 15 May and June, 1893–1894 (U. S. Nat. Herb. Nos. 720457, 782498).

This species is allied to *S. brasiliensis* Less. and in the 'Index Kewensis' is said to be synonymous with it. In the Herbarium of the Missouri Botanical Garden there is fortunately an authentic specimen of *S. brasiliensis*, namely *Martius 770*. Lessing's species is also well represented by specimens collected by Dr. J. N. Rose on an expedition to South America under the auspices of the Carnegie Institution of Washington and the New York Botanical Garden, namely *Rose & Russell 20604* from the vicinity of Itatiaia, Brazil, and *Rose & Russell 20760* from the Organ Mountains, Rio de Janeiro, both of which are in the U. S. National Herbarium. The general aspect of the two species is very similar, but *S. brasiliensis* has entire leaf-segments, a narrowly campanulate involucre, longer and fewer involucre bracts, and fewer flowers in the head. From the several specimens at hand the two species seem to be amply distinct. Whether *S. canabinaefolius* Hook. & Arn. has persisted at Hunter's Wharf is not known to the writer.

II. *ERECHTITES ARGUTA* DC. IN CALIFORNIA

The common "fireweed," *Erechtites hieracifolia* (L.) Raf., which is one of the first plants to appear on a freshly burned area, has become wide-spread throughout North America; it is well known and is copiously represented in every large herbarium. In our general and local floras it is the only

species of *Erechtites* recorded as occurring in North America north of southern Mexico.

A second member of this genus, namely *Erechtites arguta* DC., has rather recently appeared on the Pacific coast, and, although it has not yet spread to any considerable extent, there is the possibility that it too may become eventually a pernicious weed, at least in the western portion of this country. *Erechtites arguta* DC. is a native of Australia and New Zealand. It differs from our common "fireweed" in having thicker or firmer and somewhat smaller leaves which are more or less persistently white-tomentulose beneath, and in having smaller heads with shorter involucre and frequently dark brown or almost black involucral bracts. Its general appearance is rather more like certain species of *Senecio* than *Erechtites*. In fact it might very well be mistaken for *S. sylvaticus* L., from which it can be distinguished readily by having two or more rows of marginal pistillate flowers with slender 3-4-dentate corollas and relatively few perfect flowers in the center of the head. Three independent collections of this exotic plant have been made in California, all from different stations in the northern part of the state. These have been carefully studied and compared with authentic specimens of *Erechtites arguta* DC. from New Zealand, and there is complete accord in every detail. A brief description may be given as follows:

***Erechtites arguta* DC.** Prodr. 6: 296. 1837; Bentham & Mueller, Fl. Austr. 3: 659. 1866; Cheeseman, Fl. New Zealand, 364. 1906. Plate 19.

A coarse herb; stems erect, 3 to 10 dm. high, leafy, striate, slightly floccose-tomentulose; leaves oblanceolate to lanceolate, 3 to 12 cm. long, 5 to 2.5 cm. broad, pinnately lobed to runcinate-pinnatifid, sharply and unequally dentate, at first arachnoid-tomentulose above, densely and more or less persistently white-tomentulose beneath; the lowermost leaves narrowed into a petiole; the main stem-leaves sessile and semi-amplexicaul; inflorescence a terminal many-headed corymbose cyme; heads small, 5 to 7 mm. high; involucre calyculate

and tomentulose at the base, nearly or quite glabrous above; bracts of the involucre about 13, occasionally becoming dark brown or almost black in the dried state.—California: near Mendocino, 14 July, 1904, *J. W. Congdon* (Mo. Bot. Gard. Herb. No. 83706); Melburne, Mendocino Co., 10 Aug., 1905, *James McMurphy* (U. S. Nat. Herb. No. 691260); Vance's Camp, Humboldt Co., 16 June, 1911, *Huron H. Smith 3844* (Field Mus. Herb. No. 296049).

Inasmuch as the collections of this plant in California have been made in the vicinity of lumber camps, it is most probable that it has been introduced in connection with the extensive lumber trade between California, Australia, and New Zealand. The species apparently has become well established on the Pacific coast and is gradually spreading, but to what extent it may become disseminated in this country remains to be seen.

EXPLANATION OF PLATE

PLATE 19

Erechtites arguta DC.

California

From specimen in the United States National Herbarium, No. 691260.



GREENMAN—EXOTIC COMPOSITAE